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DEC 07 2004

Technology Center 2600

Appl. No. 09/701,782  
Atty. Docket: 4100-0120P  
SUBSTITUTE SPECIFICATION

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06/10/05*

A PROCESS FOR PROCESSING OFDM-SIGNALS RECEIVED  
SIMULTANEOUSLY BY A MULTI-ANTENNA SYSTEM

[0001] This application is the national phase under 35 U.S.C. § 371 of PCT International Application No. PCT/EP99/07102, which has an International filing date of September 23, 1999, and which designated the United States of America.

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0002] The present invention relates to a process for processing OFDM-signals received simultaneously by a multi-antenna system with a plurality of separate receiving channels.

2. Description of the Background Art

[0003] In modern digital technology, so-called OFDM-systems (Orthogonal-Frequency-Division Multiplex) or COFDM-systems (coded OFDM) are used for data transmission (sound, video or other data). In accordance with this principle, prior to transmission the digital data stream is split via a transmitter network into a plurality of sub-signals, each of which is transmitted separately on an individual carrier. In the so-called DVB-T-system (Digital-Video Broadcasting, terrestrial), which also serves for the transmission of data of a general type, 1705 or 6817 individual carriers are used for example. In the receiver these items of subsidiary information are recombined to form a complete item of information of the transmitter-end digital data stream.

[0004] These OFDM-systems are standardized in terms of the transmitting-end conditioning and receiving-end recovery of the data (for example in the DAB-standard ETS 300401 for DAB and in the standard ETS 300744 for DVB-T). It is a common feature of these OFDM-systems that at the receiving end the high-frequency signal received by an antenna is demodulated in an OFDM-demodulator, preferably after conversion into an intermediate frequency, and in this way the associated I/Q-values are

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